

COLLEGES AND UNIVERSITIES RATE AGREEMENT

EIN: (b)(6)

DATE: 02/03/2022

ORGANIZATION:

FILING REF.: The preceding
agreement was dated
11/03/2021

Syracuse University
Skytop Office Building, Suite 124
Syracuse, NY 13244-5300

The rates approved in this agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section III.

SECTION I: INDIRECT COST RATES

RATE TYPES: FIXED FINAL PROV. (PROVISIONAL) PRED. (PREDETERMINED)

EFFECTIVE PERIOD

<u>TYPE</u>	<u>FROM</u>	<u>TO</u>	<u>RATE (%)</u>	<u>LOCATION</u>	<u>APPLICABLE TO</u>
FINAL	07/01/2019	06/30/2021	50.00	On-Campus	Research
PRED.	07/01/2021	06/30/2022	50.00	On-Campus	Research
PRED.	07/01/2022	06/30/2024	49.00	On-Campus	Research
PRED.	07/01/2024	06/30/2025	49.50	On-Campus	Research
FINAL	07/01/2019	06/30/2021	34.00	On-Campus	Sponsored Training
PRED.	07/01/2021	06/30/2025	34.00	On-Campus	Sponsored Training
FINAL	07/01/2019	06/30/2021	35.00	On-Campus	Other Sponsored Activities
PRED.	07/01/2021	06/30/2025	35.00	On-Campus	Other Sponsored Activities
FINAL	07/01/2019	06/30/2021	26.00	Off-Campus	All Programs
PRED.	07/01/2021	06/30/2025	26.00	Off-Campus	All Programs
PROV.	07/01/2025	Until Amended			Use same rates and conditions as those cited for fiscal year ending June 30, 2025.

ORGANIZATION: Syracuse University

AGREEMENT DATE: 2/3/2022

*BASE

Modified total direct costs, consisting of all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel and up to the first \$25,000 of each subaward (regardless of the period of performance of the subawards under the award). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward in excess of \$25,000. Other items may only be excluded when necessary to avoid a serious inequity in the distribution of indirect costs, and with the approval of the cognizant agency for indirect costs.

ORGANIZATION: Syracuse University

AGREEMENT DATE: 2/3/2022

SECTION I: FRINGE BENEFIT RATES**

<u>TYPE</u>	<u>FROM</u>	<u>TO</u>	<u>RATE (%)</u>	<u>LOCATION</u>	<u>APPLICABLE TO</u>
FIXED	7/1/2021	6/30/2022	28.10	All (A)	F/T&Reg.P/T Employ.
FIXED	7/1/2021	6/30/2022	17.10	All	Summer Acad.F/T&P/T
FIXED	7/1/2021	6/30/2022	8.40	All	Temp&Above Reg. Sal.
FIXED	7/1/2021	6/30/2022	10.90	All	Grad. Assistants
FIXED	7/1/2021	6/30/2022	17.70	All	Mod. P/T Faculty
FIXED	7/1/2022	6/30/2023	29.70	All (A)	F/T&Reg.P/T Employ.
FIXED	7/1/2022	6/30/2023	16.30	All	Summer Acad.F/T&P/T
FIXED	7/1/2022	6/30/2023	8.00	All	Temp&Above Reg. Sal.
FIXED	7/1/2022	6/30/2023	9.50	All	Grad. Assistants
FIXED	7/1/2022	6/30/2023	16.60	All	Mod. P/T Faculty
PROV.	7/1/2023	6/30/2026	29.40	All (A)	F/T&Reg.P/T Employ.
PROV.	7/1/2023	6/30/2026	16.90	All	Summer Acad.F/T&P/T
PROV.	7/1/2023	6/30/2026	8.10	All	Temp&Above Reg. Sal.
PROV.	7/1/2023	6/30/2026	10.20	All	Grad. Assistants
PROV.	7/1/2023	6/30/2026	14.50	All	Mod. P/T Faculty

** DESCRIPTION OF FRINGE BENEFITS RATE BASE:

Salaries and wages.

(A) See Special Remarks - 2, 3

ORGANIZATION: Syracuse University

AGREEMENT DATE: 2/3/2022

SECTION II: SPECIAL REMARKS

TREATMENT OF FRINGE BENEFITS:

The fringe benefits are charged using the rate(s) listed in the Fringe Benefits Section of this Agreement. The fringe benefits included in the rate(s) are listed below.

TREATMENT OF PAID ABSENCES

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims are not made for the cost of these paid absences.

OFF-CAMPUS DEFINITION: The off-campus rate will apply for all activities: a) Performed in facilities not owned by the institution and where these facility costs are not included in the F&A pools; or b) Where rent is directly allocated/charged to the project(s). Grants or contracts will not be subject to more than one F&A cost rate. If more than 50% of a project is performed off-campus, the off-campus rate will apply to the entire project.

1. Equipment means tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost which equals or exceeds \$5,000.

2. Excludes summer earnings for those with academic year appointments.

3. The fringe benefit rate consists of TIAA/CREF, Group Health, Disability Benefits, Employee Tuition Remission, Unemployment Insurance, Social Security Taxes (FICA), Salary Continuation Pay, Remitted Health Fees - G.A., Group Life Insurance, Unused Sick Leave(Non-exempt Staff), Worker's Compensation, Severance Pay and Flexible Spending Accounts.

NEXT PROPOSAL DUE DATE

A fringe benefit proposal based on actual costs for the fiscal year ended June 30, 2022 is due in our office by December 31, 2022. A Facilities & Administrative cost proposal based on actual costs for the fiscal year ending June 30, 2024 is due in our office by December 31, 2024.

This rate agreement updates fringe benefit rates only.

ORGANIZATION: Syracuse University

AGREEMENT DATE: 2/3/2022

SECTION III: GENERAL

A. LIMITATIONS:

The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its facilities and administrative cost pools as finally accepted; such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been treated as facilities and administrative costs are not claimed as direct costs; (3) Similar types of costs have been accorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Federal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

B. ACCOUNTING CHANGES:

This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from facilities and administrative to direct. Failure to obtain approval may result in cost disallowances.

C. FIXED RATES:

If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES:

The rates in this Agreement were approved in accordance with the authority in Title 2 of the Code of Federal Regulations, Part 200 (2 CFR 200), and should be applied to grants, contracts and other agreements covered by 2 CFR 200, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

E. OTHER:

If any Federal contract, grant or other agreement is reimbursing facilities and administrative costs by a means other than the approved rate(s) in this Agreement, the organization should (1) credit such costs to the affected programs, and (2) apply the approved rate(s) to the appropriate base to identify the proper amount of facilities and administrative costs allocable to these programs.

BY THE INSTITUTION:

Syracuse University

(b)(6)

Jean Gallipeau

(NAME)

Comptroller

(TITLE)

3/31/2022

(DATE)

ON BEHALF OF THE FEDERAL GOVERNMENT:

DEPARTMENT OF HEALTH AND HUMAN SERVICES

(b)(6)

(SIGNATURE)

Darryl W. Mayes

(NAME)

Deputy Director, Cost Allocation Services

(TITLE)

2/3/2022

(DATE) 6492

HHS REPRESENTATIVE: Edwin Miranda

Telephone:

(b)(6)

Media Literacy & The Metaverse

A Proposal to The Department of Homeland Security (DHS)
Fiscal Year 2022 Targeted Violence and Terrorism Prevention (TVTP) Grant Program

by

P.I. Kelly Leahy Ellerton, Ed.D.
Co-P.I. Tamara Makana Chock, Ph.D.

Syracuse University S.I. Newhouse School of Public Communication
Syracuse, NY

Application Track: Innovation

Project Type: Media Literacy and Online Critical Thinking Initiatives

Funds Requested: \$592,598.00

ND Grants EMW# EMW-2022-GR-APP-00013

Project Abstract: This Innovation track project proposal focuses on understanding how media literacy can offer a method for mediating cognitive and emotional responses in an extended reality (virtual, augmented, and mixed reality) environment. This project will create and test Media Literacy interventions focused on Harmful Information in virtual spaces, to inform the prevention of extremism and violent content in the metaverse. Immersive virtual spaces such as virtual reality and the metaverse create more visceral emotions than traditional online spaces such as the internet, which makes it a potentially high risk environment for manipulation. Terrorist recruiters and violent extremists are active in online social spaces, and will most certainly target new forms of technology for their efforts to spread conspiracy theories, air grievances, and to craft misinformation, disinformation, and malinformation. This study will (1) identify key concepts and techniques specifically related to persuasion in XR contexts, and (2) apply these findings to create gamified interventions based on existing research from media literacy. This study will pilot these experiences for members of the extended reality (XR) community in the target recruitment age.

1. Needs Assessment

Target Population: Young adult males in Syracuse NY, ages 18-24, who engage with XR devices

The size of the XR (extended reality) universe is in a state of massive growth. There are an estimated 71 million users of VR headsets in the United States with more selling daily; 34% of whom are ages 18-24 (approx. 24 million).¹ The growing audience for XR entertainment games and equipment has been led by young men ages 12-34, a population shown to be susceptible to violent extremist recruitment and manipulation in online settings. This study will focus on users of XR technology, specifically men ages 18-24.

Estimated Number of People in the Target Population: approximately 6,000

Syracuse has a population of 142,500², or .038% of the American population. While specific statistics for XR usage within Syracuse could not be identified, we have used the overall population of the United States (329M), and the overall subpopulation of 18-24 year old VR headset users (34% of 71million) to calculate an approximation of VR users that are in the 18-24 year old range Syracuse, New York area at roughly 8000 people. As 24% of VR users identify as female, we can assume that there are about 6000 potential users at present.

Historically Marginalized Populations within the Target Audience: Syracuse has a very diverse population. Our recruitment efforts will therefore include white people (49% of Syracuse the population), people of color (black 29.4%; Asian 6.9%; American Indian 0.9%; two or more races 7%), and ethnic minorities (such as Hispanic or Latino 7.0%) within the Syracuse area.

Scalability: While this initial study will focus on our targeted population, if successful at media acumen training, the gamified interventions will be made available for free in game stores online to a national audience.

Other Programs Targeting this Population:

Immersive Metaverse Violence Prevention Programs nationwide:

The Department of Human Health Services and the CDC has awarded a grant to study violence prevention in online immersive spaces to National Health Promotion Associates. This grant focuses more on relational violence and suicide.³

CVE Programs in Syracuse NY:

¹ Thrive Analytics. (2022). VR Usage & Consumer Attitudes, Wave VI. Retrieved electronically on 5/10/22 from <https://artillery.co/artillery-intelligence/vr-usage-consumer-attitudes-wave-vi/>

² United States Census. (2021). QuickFacts, Syracuse city, New York. Retrieved electronically May 2, 2022 from <https://www.census.gov/quickfacts/syracusecitynewyork>

³ See <https://www.sbir.gov/node/1908577>

The Prevention Project: Organizing Against Violent Extremism at Syracuse University Institute for Security Policy and Law has focused on CVE in collaboration with the United Nations, Homeland Security, and other universities.⁴

A) “On April 28, 2017, students presented research findings in the workshop “Understanding Interdisciplinary Responses to International Terrorism & Violent Extremisms” at SU College of Law. The students’ work was the culmination of a semester-long partnership with Emory University, George Washington University, and the US Department of Homeland Security (DHS) Strategic Partnerships with Colleges and Universities.

Workshop topics included the role of the UN in crafting international counterterrorism policy; women’s leadership roles in terrorist organizations; the importance of anti-extremist K-12 educational programs; cross-cultural perspectives on CVE programs that work in other countries; the experience of vulnerable communities with CVE in the US; the challenge of implementing counterterrorist and counter-extremist laws and statutes; and the role of “hard” and “soft” power CVE mechanisms, including drones.”

B) “Students in the National Security and Counterterrorism Research Center, a working laboratory for law and other graduate students interested in contemporary security issues, worked on the following Countering Violent Extremist (CVE) projects:

A multi-institutional partnership with Emory University, George Washington University, and the Department of Homeland Security (DHS), to create recommendations for the DHS Secretary for Strategic Partnerships with Colleges and Universities and the K-12 Community with relation to CVE-related academic programs and research.

A continuation of the collaboration with the UN Counterterrorism Executive Directorate (UN CTED) examining member states’ implementation of UN Security Council Resolution 2178 (2014) to examine the domestic implementation of UNSCR 2178 and challenges among member states; to explore and compare emerging CVE laws and policies; and to track Foreign Terrorist Fighter (FTF) flows and returnees.”

Anti-Terrorism efforts in Syracuse NY

Of information available to the public, the Syracuse Police Department does not have an active CVE program. It is possible this is something that has not been reported in the press, academic journals, or via their own press releases. They actively combat terrorism, such as the Syracuse Police Department participating in New York State’s Complex Coordinated Terrorist Attack Program (CCTA) which focuses on thwarting attacks in progress rather than prevention.⁵

Media Literacy and Virtual Reality

It is worth noting there are many projects exploring the education and media literacy via virtual reality. For example, the MIT Center for Advanced Virtuality is demonstrating a range of deep

⁴ See <https://securitypolicylaw.syr.edu/our-work/projects/law-national-security-counterterrorism-policy/prevention-project/>

⁵ See https://www.dhs.gov/sites/default/files/2022-04/EMW-2020-GR-APP-00028-%20NYS%20Division%20of%20Homeland%20Security_0.pdf

fakes and thinking about how to make the public more aware of these. A systematic review of the literature revealed no publicly available projects designed to create VR trainings and VR simulations for people.

2. Program Design and Implementation & Measurement Plan (IMP)

A. Problem Statement:

Immersive virtual spaces such as virtual reality and the metaverse create more visceral emotions than traditional online spaces such as the internet, which make it a potentially high risk environment for successful recruitment of young people for violent extremist and terrorist efforts.

B. Project Goals & Objectives:

This project will create and test Media Literacy interventions focused on Harmful Information in virtual spaces, to inform the prevention of extremism and violent content in the metaverse.

- Identify key concepts and techniques specifically related to persuasion in XR contexts
- Develop XR media literacy education
- Create a gamification of these XR media literacy education concepts in the metaverse (VR)
- Pilot test potential games
- Test effectiveness and share findings

Over the two-year performance period of the grant, this project will:

- Investigate how the target audience cognitively and emotionally processes Harmful Information in VR environments
- Create experiments to understand whether basic cognitive and emotional responses in VR environment impact action
- Develop media literacy interventions that take place inside and outside the VR environment

C. Project Justification:

This research proposal aligns with Homeland Security's Innovation track grant of Targeting Prevention of Terrorist Violence. Terrorist recruiters and violent extremists are active in online social spaces, and will most certainly target new forms of technology for their efforts to spread conspiracy theories, air grievances, and to craft misinformation, disinformation, and malinformation (hereforth collectively referred to as "Harmful Information"). Hate filled narratives will strengthen in persuasive ability, and will likely encourage others to violence will move into virtual spaces that will effectively sway people to anger, violence, and terrorism.

As a result, information accessed via technology is in a veritable arms race with those providing misleading or false information. Harmful Information is being actively distributed by individuals and by bots they have created. People crave "facts" and try to find truth online, while others craft "deep fakes". Our public is susceptible to those who would sow hate and violence, susceptible to

high levels of malice through the technology they crave and use the most frequently. This study seeks to improve our understanding of countermeasures involving media literacy in the XR environment.

As virtual immersive spaces become increasingly social, enjoyable, and affordable, research must be done to explore promises and perils of spaces. In this study, we propose to investigate how media literacy can offer a method for mediating cognitive and emotional responses in an XR environment. This study will (1) identify key concepts and techniques specifically related to persuasion in XR contexts, and (2) create gamified interventions based on existing research from media literacy. This study will pilot these experiences for members of the XR community in the target recruitment age.

VR and the Metaverse: Emerging Technology

The metaverse is a relatively new term being used to capture the concept of the next phase of immersive social internet-based technologies, frequently those situated in 3D and virtual reality environments. While varied tech leaders have different visions for the metaverse, the commonalities we are seeing are the idea of being able to engage with other people in a more intimate and immersive way.

The metaverse is often envisioned as taking place via Extended Reality (XR) technology, which encompasses both Virtual Reality (VR) and Augmented Reality (AR). While previously the playground for only the most privileged part of society, the price points for XR devices and experiences has been lowering dramatically. At the same time the technology is becoming more user-friendly; high sales figures and a growing library of innovative content has created a market demand for new experiences in XR environments.

Research about immersive XR technology suggests that the very nature of immersion can create higher levels of empathy, such as compassion and understanding. Put into the hands of terrorist recruiters, this powerful technology could be used as the ultimate persuasion tool. It is not hard to imagine a recruiter creating images of death, destruction, and laying over their emotion-driven narrative. Will this create a more powerful recruitment tool in the hands of our enemies? This study seeks to understand this question.

A number of studies have found that the immersive nature of virtual reality tends to increase individuals' sense of "presence" (or being there). This heightened presence tends to increase the intensity of emotional responses, and the impact of virtual reality content on users' attitudes and perspectives. A limited amount of research has addressed the potential impact of virtual reality on negative social behaviors, and the results suggest that the relationship may be complicated. For example, one study found that playing violent virtual reality games actually elicited *less* aggressive thoughts and actions than non-VR versions of those games. However, a number of studies have found that virtual reality experiences can be used to heighten empathy and perspective-taking which can contribute to taking action. For example, experiencing a virtual environment from the perspective of an African-American female avatar tended to increase a sense of identification with that character and heighten perceptions of racial injustice. One study found that virtually experiencing a homeless encampment led to greater empathy for the homeless community. Another found that virtually experiencing the aftermath of the Hiroshima

bombing was associated with greater support for nuclear disarmament and similarly that experiencing a first-person refugee experience led to greater support for Syrian refugees.

As previously noted, the greater sense of presence evoked by virtual reality can elicit more intense emotions. This may be particularly important for negative emotions. Prior research has found that negative emotion plays an important role in the persuasion process. Negative emotions serve as heuristic cues that prime individuals' interest in a message and can motivate people to do something to alleviate the uncertainty arising from those emotions. Studies of personality characteristics have found that "activists" are more likely to experience high levels of anger as well as having strong perceptions of efficacy, or the ability to somehow change matters.

In addition to the spatial aspect of presence, the social aspect of presence may be particularly relevant in the Metaverse. Social presence refers to the extent to which people feel that others are present with them in a virtual space. In the Metaverse, social presence may be more powerful than simply observing virtual environments. Humans are fundamentally social beings who are evolutionarily driven by a need to belong to a group. Positive emotions are associated with being part of a group and negative emotions are associated with isolation, or worse—rejection. In consequence, humans are hard-wired to pay attention to other people. This type of attention can increase our sense of engagement with a virtual experience, improve learning and memory, and elicit greater persuasion. It is therefore important to identify key concepts and techniques specifically related to persuasion in XR contexts, and to use this information to develop potential interventions.

Media Literacy: A Critical Skill

The ability to discern facts from fiction is critical. With nearly the entire universe of knowledge readily available for human consumption via digitized libraries, data networks, and shared knowledge via wikis, we are at an unprecedented time requiring new strategies for media literacy. While a renewed focus on media literacy seems to be taking hold in the K-12 space, methods of protecting people against susceptibility are still being formed. The traditional media literacy methods, such as running through checklists, aren't enough. We need people to improve their Media Acumen - to look at something online and immediately identify that something is "off". They need to know that something is too persuasive, too emotional, that facts are being stretched. The vast majority of the population is not in K-12 schooling. So we must ask:

- How do we best help adults from the most Harmful Information, particularly those that lead to terrorist recruitment and needless violence?
- How can media literacy offer a method for mediating these cognitive and emotional responses?
- Is media literacy more effective as an outside training or integrated into a VR training game?

D. Intervention Design:

Our research lab in the XR space has been focused on understanding the impact of XR experiences on people's persuasiveness. This study will focus on creating several different resources to further our understanding.

Product development:

1. Pre-test and post-test for assessing Media Acumen.
2. Biometric assessments of cognitive and emotional reactions to media literacy interventions.
3. Harmful Information Training Analog – a media literacy intervention focused on improving Media Acumen. This will demonstrate a variety of harmful information including viral deception, deep fakes, malinformation, misinformation, disinformation.
4. Harmful Information Training VR – a gamified in-VR media literacy intervention focused on improving Media Acumen. This will demonstrate a variety of harmful information including viral deception, deep fakes, malinformation, misinformation, disinformation.
5. Harmful Information Simulator – A VR simulation designed to test subjects' acumen at spotting Harmful Information, particularly hidden among good information.

Experimental Design

All subjects will take a pre-test to assess their confidence levels with spotting Harmful Information, and their current level of acumen. While subjects are experiencing the training simulations, biometric data concerning cognitive effort and emotional responses will be collected allowing for identification of responses to specific elements of the media literacy interventions.

Treatment group 1: Receives a traditional media literacy intervention: Harmful Information Training. They engage with Harmful Information Simulator (which demonstrates a variety of harmful information including viral deception, deep fakes, malinformation, misinformation, disinformation), then are given a post test. They are fully debriefed about the nature of what they saw and that it was fabricated by our laboratory.

Treatment group 2: Receives a gamified Harmful Information VR Training, then engage with Harmful Information Simulator, then given a post test. They are fully debriefed about the nature of what they saw and that it was fabricated by our laboratory.

Control group 3: Receives no training but engages with Harmful Information Simulator. They are fully debriefed about the nature of what they saw and that it was fabricated by our laboratory. They receive the Harmful Information Training upon completion of testing.

Project Phases

This project has a two year timeline and five phases.

	Focus	Timeline	Tasks
Phase I	Initiation	September 2022-December 2022	1) Planning and hiring of student research assistant 2) IRB Submission 3) Formation of Steering Advisory Committee

			4) Establish bi-weekly project meetings
Phase II	Research & Development	January 2023-June 2023	1) Identify identify key concepts and techniques specifically related to persuasion in XR contexts compared to other online platforms. 2) Develop media literacy interventions: Harmful Information Trainings 3) Pre-production for gamification products
Phase III	Implementation	June 2023-May 2024	1) Production of the Harmful Information Training, Harmful Information Simulator 2) Pilot testing and refinement of both HIT 3) Development of pre- and post-test instruments
Phase IV	Measurement	January 2024-June 2024	1) Experimental testing of ML analog Harmful Information Training 2) Experimental testing of Harmful Information Training 3) Effectiveness measurement
Phase V	Analysis and Reporting	June 2024-September 2024	1) Summative analysis of collected data 2) reporting 3) preparation for publication 4) preparation of next phases of research

E. Logic Model:

Logic Model for Media Literacy in the Metaverse

This project will create and test Media Literacy interventions focused on Harmful Information in virtual spaces, to inform the prevention of extremism and violent content in the metaverse. Over the two-year performance period of the grant, this project will: investigate how the target audience cognitively and emotionally process Harmful Information in VR environments, create experiments to understand cognitive and emotional responses, develop media literacy interventions that take place inside and outside the VR.

<u>Inputs</u>	<u>Activities</u>	<u>Outputs</u>	<u>Short Term Outcomes</u>	<u>Long-Term Outcomes</u>
Co-PIs & Student Research Assts Game Designer Advisory Steering Committee Extended Reality Lab Extensive research support services at Syracuse University and Newhouse School of Public Comm.	Develop media literacy interventions Creation of intervention and measurement tools Pilot testing and refinement Subject recruitment and testing Evaluation	# of subjects who go through three testing conditions # of people engaging with a targeted VR Media Literacy gamified intervention focused on Harmful Information that can be used freely in online spaces	Local subjects who are better able to identify Harmful Information in virtual spaces Number of people engaging with ML increases nationwide upon release of intervention	A public more able to defend themselves against Harmful Information dispersed via VR and the Metaverse Increased critical thinking when engaging with media

Theory of Change: Exposure to Harmful Information is not uncommon, but motivation to violence is. It is hard to target the susceptible, so a wide net must be cast; to reach the target, we must create high-engagement interventions that feel like a game for a broad audience.

Likelihood of Success: High. The Co-PIs bring to this project combined decades of research, content and product design, and an intense interest in what they are doing. The combination of their knowledge and experience in media literacy and immersive tech design research is high.

Contextual Factors: VR usage is rapidly popularizing and use of product has increased; the 2+ year pandemic, consequent economic challenges have increased alarm about the need for more action, which could lead to more vulnerability to Harmful information.

Underlying Assumptions: Media literacy is a vastly underused educational strategy, and the majority of people will need to have training outside of K-12 school settings; it is imperative we find ways to make this information palatable and engaging to the general public.

F. IMP Overview:

Please see Appendix A

G. Evaluation:

The evaluation of the intervention will be necessarily multi-pronged. We will evaluate 1) the design and development of media literacy interventions across the conditions (analog, virtual, absent), to test the effectiveness of media literacy interventions. The effectiveness of the media literacy interventions will be evaluated by assessing A) pre-test/post-test assessments of media acumen, B) game performance, C) Biometric and self-reported cognitive and emotional responses to the interventions.

- A) Pre-test/Post-test measures of Media Acumen will be used to identify changes in knowledge, understanding, and ability to detect misinformation, disinformation, and malinformation.
- B) Game performance will be used to assess users' skills in successfully identifying misinformation, disinformation, and malinformation within the context of the game itself.
- C) Cognitive and emotional responses to the interventions will be assessed using:
 - a. overall survey measures of self-reported attention and emotions
 - b. self-reported evaluations of games (sense of presence, enjoyability, interest)
 - c. moment-to-moment biometric assessments of cognitive effort and emotions.

Cognitive effort will be assessed using the HP Omnicept Reverb which combines measures of eyetracking and pupillometry and heart rate to identify changes in effort and cognitive load. This device has been used in the design and testing of virtual training simulations to determine the maximal level of cognitive effort/effectiveness ratio. In addition, physiological arousal (skin conductance) will be used to assess responses to specific elements of the media literacy games. This moment-to-moment measurement allows for identification of specific techniques as game elements that elicit reactions.

H. Accessibility Statement: Syracuse University is an inclusive community. We seek to provide equal opportunities for all, including individuals with disabilities. Our varied services not only accommodate individuals with disabilities, but also recognize their potential to excel in both educational and career opportunities at Syracuse.

3. Organizations & Key Personnel

Syracuse University

Founded in 1870, Syracuse University is a private, coeducational research institution located in the heart of Central New York. Students can choose from more than 200 majors, 100 minors, and 200 advanced degree programs across the University's 13 academic units. The University was incorporated in 1870 and grew rapidly, establishing programs in architecture and fine arts that were among the nation's earliest. By 1934, the University's academic divisions had grown to comprise 13 schools and colleges. Syracuse is a university of national stature and international opportunity, known for its professional programs, investment in research and innovation, and

undeniable school spirit. Syracuse University's total enrollment for Fall 2020 was 21,322, including both full- and part-time students in undergraduate, graduate and law programs. This student population represented all 50 U.S. states and 120 countries.

Syracuse University is a top-tier international research university, where academic inquiry spans and unites a full range of disciplines. Faculty and students collaborate to produce research, scholarship and creative work that advances our fundamental understanding of issues facing society and innovative solutions that have an impact at the community, state, national and global level. Ranked #58 among the Best National Universities by U.S News & WR, Syracuse offers many highly-ranked programs and co-curricular opportunities. At the end of fiscal year 2019, the University's endowment fund was valued at approximately \$1.4 billion. Infused with a strong entrepreneurial culture, the University is home to over 40 research centers and institutes spanning disciplines from performance, design, fine arts and humanities to information, health, social sciences and STEM (science, technology, engineering, and mathematics) fields. Designated as a Research 1 institution, Syracuse University is one of the leading research universities in New York and was awarded a total of \$78.9 million in fiscal year 2021.

Newhouse School of Public Communications

The S.I. Newhouse School of Public Communications in Syracuse University is the nation's oldest and leading school of communication, preparing students to become leaders in a rapidly changing media landscape. It is ranking in the top five Best Colleges Offering Degrees in Communications and Journalism in 2021 by College Factual and as runs the Best College Newspaper in the U.S. in 2020 according to Princeton Review. Starting in 1934 as the School of Journalism at Syracuse University, the school later expanded into a communication school with the first Newhouse building being opened in 1964. It is one of the nation's premier communications schools where talented students come to study and learn from top industry professionals. It is one of the top mass communications schools accredited by the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC) for consistently offering excellent preparation for students' future careers in the communications industries. Its accreditation reflects its commitment to small class sizes, hands-on learning experiences, comprehensive advising and career development, and a strong liberal arts foundation.

Newhouse offers residential bachelor's, master's and doctoral degrees; an online master's degree; and an executive education master's degree offered in a distance-learning format. The school enrolls approximately 1,900 undergraduates, 210 residential master's degree students, 200 online master's degree students and 13 doctoral candidates. The School employs more than 80 full time faculty, 50 adjunct faculty, 50 full time staff, and 10 part-time staff. In addition to being excellent teachers and mentors, our faculty are on the frontier of research with the goal of expanding the overall knowledge and understanding of mass media and communications. Areas of specialization include Advertising, Music Industry, Journalism, Graphic Design, Photography, Public Relations, Television, Radio, Film, Communications, Media, and New Media.

The Newhouse School is engaged in industry partnerships and ongoing academic development that prepare students and faculty to embrace a rapidly changing media landscape. Students test their skills and gain real-time experience through a number of school-based organizations: The NewsHouse, a student-run digital outlet; NCC News, a broadcast news outlet; Hill

Communications, a student-run public relations firm; and TNH, a student-run advertising agency. Students also have the opportunity to spend a semester in New York City or Los Angeles through the school's two satellite campus programs.

Newhouse Facilities

The Newhouse School's three-building complex is a leading-edge learning environment that includes the tools and technologies used by researchers and professionals in the field. The school's world-class facilities include a high-tech entertainment production studio; an innovation lab where content development and production meet the latest media technology and programming trends; and a digital newsroom equipped with a contemporary news set, a green screen, state-of-the-art lighting systems and cameras.

Extended Reality Lab

Research will be conducted on site at the Syracuse University Extended Reality Lab. The Extended Reality Lab (<https://newhouse.syr.edu/research/research-spaces/extended-reality-lab>) is a research facility located in the S. I. Newhouse School of Public Communications at Syracuse University. The Lab is dedicated to examining the ways in which extended reality (virtual reality, augmented reality, and mixed reality) affects users. The research projects pursued in the Lab make use of state-of-the-art extended reality technologies and incorporate different methodologies ranging from experimental psychophysiological research studies to focus groups. The Lab space includes an observational booth as well as recording equipment.

Researchers in the Lab work in conjunction with faculty and students at the Newhouse School who specialize in content creation to test responses and perceptions of virtual and augmented reality content. The Lab is equipped with a range of psychophysiological research tools, including BioPac's electrocardiogram (ECG), electroencephalogram (EEG), electrodermal activity (EDA), and electromyography (EMG) sensors and software. The Lab is also equipped with a neural imaging system that can detect changes in hemodynamic activity in the brain related to specific types of neural processing, the functional near-infrared spectroscopy system (fNIRS). In addition, the Lab is equipped with the HP Omnicept Reverb, a system that assesses changes in cognitive effort while people are using a virtual reality headset.

In addition to the HP Omnicept Reverb, the Lab is equipped with a range of different virtual reality and augmented reality devices including the HTC Vive, Meta Quest 2, and HoloLens 2.

Research Team

Two full-time research professors will lead this team. Dr. Kelly Leahy has expertise in Media Literacy educational strategies. Dr. Makana Chock has expertise in XR interventions, communications psychology, and measurements. Both faculty have experience designing and creating gamified learning activities. Additionally, two graduate students and one Masters student will join the team to assist with subject recruitment, data collection and measurement, and other key design elements.

Dr. Kelly Leahy is an assistant professor at Syracuse University's Newhouse School of Public Communications. Her research focuses on children and youth media, educational media, and media literacy. Her career has been focused on applying educational research to engaging media at a variety of highly-lauded organizations, including PBS, iCivics, Nickelodeon, and Discovery Communications. She has served on advisory boards and panels for the White House, the Library

of Congress, and the American Association of Pediatrics, among others. She has served as co-PI of a five-year project funded by the Library of Congress and served as Project Director for two projects funded by the National Endowment for the Humanities (all at the non-profit iCivics). Leahy received her doctorate from Harvard University; she is also an alumna of Northwestern University and the American School of Paris.

Dr. T. Makana Chock is the Director of the Extended Reality Lab and the David J. Levidow Endowed Professor and has conducted internationally recognized research in the areas of media psychology. She studies the ways in which people process and respond to persuasive messages in mass media, social media and extended reality (virtual, augmented, and mixed reality) contexts. Her research in these areas has been published in top journals in the field and she has been invited to present her work on the psychology of extended reality at universities in S. Korea, Germany, and the Netherlands. She is currently the P.I. on a grant from Facebook Social Reality Labs examining cross-cultural perceptions of visual privacy in the context of extended reality. Chock received her doctorate in Communications from Cornell University; she received her master's in Speech Communication, Master's in Library and Information Science, and B.A. in Political Science from the University to Hawaii at Manoa.

Additional University Supports:

- Administrative Team: Additionally, as a component of the indirect costs budget on this grant, the Research Team will have access to the full resources of Syracuse University, including IRB, administrative support, financial accounting support, and myriad other potential services (for example PR and press coordination if desired by Homeland Security and FEMA) that provide faculty support on research projects.
- Library and Information Databases: The Syracuse University Libraries support teaching and research at its six major libraries on the Syracuse University and State University of New York College of Environmental Science and Forestry (SUNY-ESF) campuses available to Syracuse University students and numerous smaller, school-specific library spaces that offer in-person assistance and instruction. The Syracuse University Libraries department has an extensive online database of resources to help its digitally savvy students and researchers to succeed. Syracuse University Libraries Facility is a state-of-the-art, 20,000 square foot, high-density storage complex. Featuring quiet study spaces, group meeting rooms, wireless access, 24/7 assistance and 4.8 million items, Syracuse University Libraries support research and scholarship throughout campus and beyond. It owns 187343 journal titles and 697,448 e-book titles.
- Office of Sponsored Programs (OSP): Research activities are coordinated with the Syracuse Office of Sponsored Programs (OSP) which brings together expertise and efficient procedures to enhance research administration. Through the university's Office of Research, which promotes research, technology transfer, and scholarship, and its Office of Sponsored Programs, which assists faculty in seeking and obtaining external research support, SU supports research in the fields of management and business, sciences, engineering, education, information studies, energy, environment, communications, computer science, public and international affairs, and other specialized areas. After a grant award has been issued by a funding body and all terms and conditions have been agreed upon by all parties involved, OSP project administrators ensure that the

requisites are followed. The project administration team provides financial management services and serves as liaison to the funding organization.

4. Sustainability

The Co-PIs plan to sustain this work with grants from Syracuse University and external philanthropic funders. It is highly likely that industry contacts at VR companies may wish to support this research, as it shows a critically important optic of corporate responsibility.

The project will live on in online game stores:

This project fits in with other research projects at the Newhouse School and Syracuse University in general, which includes research on detection of deep fakes and the weaponization of disinformation as well as DARPA-funded research on creating AI algorithms that can identify fake news and manipulated media.

Data Management Plan: Syracuse University

Products of Research:

The proposed project will involve qualitative (in-depth interviews, community conversations) and quantitative (surveys, experiments) research with human subjects. All members of the research team at Syracuse will have their human subjects (CITI) certification. Identifying information collected in the research studies such as participant names, phone numbers, and email addresses will be stored separately from other data. They are only linkable to participant data via anonymous identifiers which are accessible only to The research team at Syracuse. Data will be shared via secure file sharing site (Syracuse Google Drive) that is password protected.

Data Formats and Standards:

Quantitative data will be collected and stored in Excel and converted to SPSS for cleaning and data analysis. Qualitative data will be collected and stored as Word documents and entered into NVivo or MAXQDA for cleaning and data analysis. Each data set will have a detailed codebook describing the variables and the coding strategies. All output will have variable and value labels, and any re-coding will be carefully documented. Data that is shared across sites will be anonymized. Excel and SPSS formats are common and easy to convert to other software (such as STATA and other open-source software such as R). Dedoose, Nvivo and MaxQDA are qualitative data management software that allows for collaborative coding and analysis. MaxQDA also allows for mixed methods research, including quantitative data analysis.

Dissemination, Access and Sharing of Data:

The data from the research studies conducted for this project will be shared in conference presentations and published as peer-reviewed articles and briefs in academic journals. Summaries of the findings will also be made available to the participants involved in the research studies, as well as to other organizations that may benefit from the information (e.g., children's media producers).

Archiving of Data:

Any data that has been collected via hard copy (e.g., consent forms) will be digitized and stored along with other digital data that has been collected through research studies. All data will be securely stored and archived on Syracuse University servers for seven years. All datasets will be duplicated and stored on a remotely located server, providing duplicate backup access. As computer systems are upgraded or changed, data will migrate to new servers and platforms.

Security Measures

All data transfer and communications involving potentially identifying information is handled with secure systems. Access to data is limited only to research staff trained in data security. In accordance with Syracuse University confidentiality and security protocols, all data is stored in a secured area and any paper material shredded as soon as allowable either by contract agreement or law. All analytic software and databases are located in a secure location with restricted access. Data containing potentially identifying elements are stored in a manner accessible only to designated Newhouse staff. No aggregate reports are published at a level of detail that would lead to the identification of individuals.

5. Budget Detail & Narrative

Please see Appendix E for full detail

Overview:

Budget Category	Federal Request
Personnel	\$211,324.00
Fringe Benefits	\$27,241.00
Travel	\$10,700.00
Supplies	\$9,800.00
Contractual	\$100,000.00
Other	\$36,000.00
<i>Total Direct Costs</i>	\$395,065
Indirect Costs (50%)	\$197,533.00
TOTAL PROJECT COSTS	\$592,598.00

Appendix A – Implementation and Measurement Plan

Implementation and Measurement Plan for Media Literacy & the Metaverse

Goals	<p>This project will create and test Media Literacy interventions focused on Harmful Information in virtual spaces, to inform the prevention of extremism and violent content in the metaverse.</p> <p>To achieve this goal, research and design will focus on creation of media literacy interventions:</p> <ul style="list-style-type: none"> • Identify key concepts and techniques for persuasive techniques in XR settings • Develop XR media literacy education • Create a gamification of these XR media literacy education concepts in the metaverse (VR) • Pilot test potential games • Test effectiveness and share findings
Objective	<p>Over the two-year performance period of the grant, this project will:</p> <ul style="list-style-type: none"> • Investigate how the target audience cognitively and emotionally process Harmful Information in VR environments • Create experiments to understand whether basic cognitive and emotional responses in VR environment impact action • Develop media literacy interventions that take place inside and outside the VR environment
Inputs & Resources	<p>Research Team. Two full-time research professors, one with expertise in Media Literacy educational strategies (Leahy) and one with expertise in XR interventions and measurements (Chock). Both faculty have experience designing and creating gamified learning activities. Additionally, two graduate students and one Masters student will join the team to assist with subject recruitment, data collection and measurement, and other key design elements.</p> <p>Administrative Team. Additionally, as a component of the indirect costs budget on this grant, the Research Team will have access to the full resources of Syracuse University, including IRB, administrative support, financial accounting support, and myriad other potential services (for example PR and press coordination if desired by Homeland Security and FEMA) that provide faculty support on research projects.</p> <p>Advisory Steering Committee. Five key team members will be from the media literacy community, VR/XR communities, the malinformation community.</p>

	<p>Lab Space. Research will be conducted on site at the Syracuse University Extended Reality Lab (https://newhouse.syr.edu/research/research-spaces/extended-reality-lab), a research facility located in the S. I. Newhouse School of Public Communications at Syracuse University. Researchers in the Lab work in conjunction with faculty and students at the Newhouse School who specialize in content creation to test responses and perceptions of virtual and augmented reality content. Lab resources include:</p> <ul style="list-style-type: none"> • psychophysiological research tools, including BioPac’s electrocardiogram (ECG), electroencephalogram (EEG), electrodermal activity (EDA), and electromyography (EMG) sensors and software. • neural imaging system that can detect changes in hemodynamic activity in the brain related to specific types of neural processing, the functional near-infrared spectroscopy system (fNIRS). • HP Omnicept Reverb, a system that assesses changes in cognitive effort while people are using a virtual reality headset. • a range of different virtual reality and augmented reality devices including the HTC Vive, Meta Quest 2, and HoloLens 2.
Activity	<p>Phase I - Initiation</p> <ol style="list-style-type: none"> 1) Planning and hiring of student research assistant 2) IRB Submission 3) Formation of Steering Advisory Committee 4) Establish bi-weekly project meetings <p>Phase II – Research and Development</p> <ol style="list-style-type: none"> 1) Identify potential differences in how this information may operate in the metaverse compared to other online platforms. 2) Develop media literacy interventions: Harmful Information Trainings 3) Pre-production for gamification products <p>Phase III - Implementation</p> <ol style="list-style-type: none"> 1) Production of the Harmful Information Training, Harmful Information Simulator 2) Pilot testing and refinement of both HIT

	<p>3) Development of pre- and post-test instruments</p> <p>Phase IV - Measurement</p> <ol style="list-style-type: none"> 1) Experimental testing of ML analog Harmful Information Training 2) Experimental testing of Harmful Information Training 3) Effectiveness measurement <p>Phase V – Analysis and Reporting</p> <ol style="list-style-type: none"> 1) Summative analysis of collected data 2) Reporting 3) Preparation for publication 4) Preparation of next phases of research
Output	<ol style="list-style-type: none"> 1) Pre-test and post-test for assessing Media Acumen 2) Harmful Information Training Analog – a media literacy intervention focused on improving Media Acumen. This will demonstrate a variety of harmful information including viral deception, deep fakes, malinformation, misinformation, disinformation. 3) Harmful Information Training VR – a gamified in-VR media literacy intervention focused on improving Media Acumen. This will demonstrate a variety of harmful information including viral deception, deep fakes, malinformation, misinformation, disinformation. 4) Harmful Information Simulator – A VR simulation designed to test subjects’ acumen at spotting Harmful Information, particularly hidden among good information. 5) Data and measurement findings
Outcome Indicator	A scaled scoring of the Post-test will be created to allow us to understand success
Data Collection Method	<ol style="list-style-type: none"> 1) Experimental testing of ML analog Harmful Information Training 2) Experimental testing of Harmful Information Training 3) Effectiveness measurement
Data Collection Timeframe	January 1, 2024-June 30, 2024

Results	Results will be shared with Homeland Security, and if successful, the gamified VR materials will be made available via online game sites for free to the general public. These findings will also be shared with the XR/VR community and the Media Literacy community via academic conferences.
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Appendix B – CVs of Key Personnel

Kelly Leahy Ellerton
T Makana Chock

Kelly Leahy Ellerton, Ed.D.

(previous names: Kelly Elizabeth Leahy, Kelly Leahy Whitney)

Education

Harvard University, Doctor of Education, 2013

Harvard University, Master of Education, 2006

Northwestern University, Bachelor of Science, School of Communications, 1997

Additional coursework taken at NYU, Pratt Institute, Columbia University

Professional Experience (selected)**Academia**

Assistant Professor, Television, Radio, and Film, Newhouse School of Communications at Syracuse University. 2021-present

Visiting Assistant Teaching Professor, Television, Radio, and Film, Newhouse School of Communications at Syracuse University. 2020-2021

Adjunct Professor, Newhouse School of Communications & Education School at Syracuse University. 2019

Adjunct Professor, Communications at Lasell College. 2011-2013

Teaching Fellow, Graduate School of Education Harvard University. 2006-2013

Project Manager, Project New Media Literacies, MIT. 2008-2009

Research Coordinator, Project New Media Literacies, MIT. 2007-2008

Industry

Chief Product & Partnerships Officer, iCivics. 2016-2020

Chief Product Officer, iCivics. 2015-2016

Director, Curriculum & Content, PBS Education, PBS. 2013-2015

Supervising Producer, Animation Collective. 2004-2005

Associate Producer, Current Series, Discovery Kids, Discovery Communications. 2003-2004

Children's Series Development Consultant, Discovery Kids, Discovery Communications. 2002-2003

Manager, Nick Jr. Current Series and Development, Nickelodeon, Viacom. 2000-2001

Project Manager, Production Management, Nickelodeon, Viacom. 1999-2000

Coordinator, Production Management, Nickelodeon, Viacom. 1998-1999

Awards

Journalism Fellow. (2018). Institutional Fellow. Reynolds Journalism Institute, University of Missouri.

Fred Rogers Scholar. (2012). Research Fellow. Academy of Television Arts and Sciences. Los Angeles, CA.

Emma Gildersleeve Lane Scholarship (2011, 2012). Harvard University.

Roy E. Larsen Fellowship. (2006). Harvard University.

Directing Fellow. (1998). Playwrights Horizons. New York, NY.

National Boards, Advisory Boards, and Special Committees

Library of Congress. (2017-2020). Teaching with Primary Sources Advisory Board. Washington D.C.

National Association for Media Literacy Education. (2014-18). Governing Board. Vice President, 2017-18.
The White House, Office of Domestic Policy. (2016). Education Leaders on Civic Engagement. Special Committee.
The White House, Office of Science & Technology Policy. (2015). Games for Innovating Learning and Assessment. Special Committee.
American Academy of Pediatrics. (2015). Children's Digital Media Alliance, Advisory Board. Chicago, IL.

Federal Grants

Library of Congress. Principal Investigator. (2016-2020 at iCivics). Online Interactives and Mobile Apps on Congress and Civic Participation. \$543,735 cumulative over three grant cycles.
National Endowment for the Humanities. Project Director. (2019-2020 at iCivics). Educating for American Democracy: A Roadmap for Excellence in History and Civics Education for All Learners. \$650,000. Continuance grants of \$100,000 and \$350,000.
National Endowment for the Humanities. Project Director. (2018-2019 at iCivics). Ratifying the Constitution: A Digital Game Opportunity. \$350,000.

Conference Papers

National Council on the Social Studies. (2018). *iCivics and CS4*. Chicago, IL.
Connected Learning Conference. (2018). *Revolutionizing How America Teaches Civics*. Cambridge, MA.
Serious Play Conference. (2018). *Revolutionizing How America Teaches Civics*. Manassas, VA.
Reimagine Education Conference. (2017). *Re-imagining Civic Learning at Scale for Democracy*. Philadelphia, PA.
National Association for Media Literacy Education Conference. (2017). *Bridging Civic Skills & News Literacy Skills*. Chicago, IL.
Future of Educational Technology Conference. (2015). *Cultivate Innovative Thinking with Digital Media*. Orlando, FL.
Media@LSE Conference, London School of Economics. (2008) *Participatory Culture and Transmedia Navigation: What Mobile Technology can Teach us about New Media Literacies*. London, UK.
International Conference of the Learning Sciences. (2006). *FlowBlocks as a Conceptual Bridge between Understanding the Structure and Behavior of a Complex Causal System*. Bloomington, IN.
Harvard Graduate School of Education Student Conference. (2006). *FlowBlocks as a Conceptual Bridge between Understanding the Structure and Behavior of a Complex Causal System*. Cambridge, MA.

Conference Panels

Woodrow Wilson Institute. (2017). *Online to Offline: Using Serious Games to Increase Civic Engagement. Presenter and Panelist*. Cities in Play Convening, Washington D.C.
American Writers and Writing Programs. (2017). *How I Learned to Love Technology*. Panelist. Washington, D.C.
Digital Citizenship Summit. (2016). *Digital Citizenship & Media Literacy*. Panelist. Twitter, San Francisco, CA.

SXSWedu. (2016). *Modern Social Studies: New Standards, New Tools*. Panelist, Austin, TX.
NAMLE Conference. (2015). *Celebrating Media Literacy Education in Early Childhood*. Panel Chair. Philadelphia.
Ed Tech Up. (2012). Panel on Early Education and Technology: How Technology is Shaping the Way Youngsters Learn. Early Education Panel. Boston, MA.

Invited Talks

Harvard University. (2019). *iCivics: Innovative Design in Educational Technology*. Cambridge, MA.
National Book Festival. (2019). *Race to Ratify*. Washington D.C.
American University. (2019). *Game Based Learning*. Invited lecture, Washington, D.C.
American University. (2018). *Game Based Learning*. Invited lecture, Washington, D.C.
Rochester Institute of Technology. (2017). *iCivics as a case study of successful scaled educational game-based learning*. Invited lecture. Rochester, NY.
Skaneateles Public Schools. (2017). *Skaneateles Central Schools Forum on Media and Children*. Keynote speaker. Skaneateles NY.
Library of Congress. (2017). *Online Interactives and Mobile Apps on Congress and Civic Participation: iCivics Product Update*. Presenter. Teaching with Primary Sources Convening, Washington D.C.
New York University. (2017). *Game Based Learning*. Invited lecture. New York, NY.
American University. (2017). *Game Based Learning*. Invited lecture, Washington, D.C.
Harvard University. (2017). *Game Based Learning*. Invited lecture, Cambridge, MA.
Harvard University. (2016). *Educational Product Design: Ideation, Innovation, and iCivics*. Invited lecture, Cambridge, MA.
George Mason University. (2015). *Educational Industry Perspectives*. Guest panelist, Fairfax, VA.
PBS Digital Innovators Summit. (2014). *Innovation and Stations*. Presentation, Arlington, VA.
PBS Digital Innovators Summit. (2014). *Pedagogy + Technology + Content = Success*. Presentation, Arlington, VA.
Harvard Graduate School of Education. (2012). *Media and Education course: Parents' Perspectives of Emerging Technology & Enrichment: Preliminary Findings*. Invited Lecture, Cambridge, MA.
Harvard Graduate School of Education. (2008). *Pitching Project Ideas to Industry Executives*. Invited Lecture, Media and Education course. Cambridge, MA.

Service

Syracuse University. (2021-present)

- Committee Member, Online Undergraduate Exploratory Committee, Newhouse School of Communication. (2021)
- Independent Chair, Undergraduate Tracks, Television Radio and Film Department. (2021)
- Independent Study Supervisor, Media and Education Masters Student. (2021)

Skaneateles Education Foundation. (2018-present). Governing Board. Skaneateles, NY.

- Past President 2021-present
- President 2019-2021

T. Makana Chock
Ph. D., Cornell University
Curriculum Vitae

Education:

Ph.D. in Communication (2004), Department of Communication, *Cornell University*
M.A. in Speech (2002), Speech Department, *University of Hawaii at Manoa*
Master of Library and Information Studies (1991), School of Library and Information Studies,
University of Hawaii at Manoa
B.A. in Political Science (1988), *University of Hawaii at Manoa*. Area of Study: International
Relations

Teaching & Research Positions

Syracuse University, S.I. Newhouse School of Public Communication

2021-present Director, Extended Reality Lab,
2018-present David J. Levidow Endowed Professor
2018-present Affiliate Faculty, Social Psychology Program, Dept. of Psychology
2013-2016 Newhouse Endowed Chair of Public Communications
2016 Interim Director, Media Studies Master's Program
2011-present Associate Professor, Dept. of Communications
2005-2011 Assistant Professor, Dept. of Communications

2003-2005 Lecturer, Indiana University, Dept. of Telecommunications
2000-2003 Visiting Lecturer, Indiana University, Dept. of Telecommunications

Professional Experience

1991-1993: Audiovisual Librarian, University of Hawaii at Manoa
1992-1996: Reference Librarian, Hawaii State Library, Honolulu, Hawaii

Selected Refereed Publications

Henderson, K. and Chock, T. M. (2021). Could cutting costs mean changing minds? Effects of storytelling techniques on local television news viewers' memories, emotions, and deliberations. *Journalism*. <https://doi.org/10.1177/14648849211036285>
Shin, M., Song, S., & Chock, T. M. (2019). Uncanny valley effects on friendship decisions in virtual social networking service. *Cyberpsychology, Behavior, and Social Networking*. <https://www.liebertpub.com/doi/full/10.1089/cyber.2019.0122>
Kim, G., Buntain, N., Hirshfield, L., Costa, M. & Chock, T. M. (2019). Processing racial stereotypes in virtual reality: An exploratory study using functional near-infrared spectroscopy (fNIRS). *Augmented Cognition: Proceedings of the 21st International Conference on Human-Computer Interaction*. https://link.springer.com/chapter/10.1007/978-3-030-22419-6_29
Canuelas-Torres, L., & Chock, T. M. (2018). More than a game? Presence and attitudes about virtual reality. *Proceedings of the 18th Conference of the International Society for Presence Research*. <https://ispr.info/presence-conferences/previous-conferences/presence-2018/>

- Kim, J., & Chock, T. M. (2016). Personality traits & psychological motivations predicting selfie-posting behaviors on social networking sites. *Telematics and Informatics: An Interdisciplinary Journal on the Social Impacts of New Technologies*. DOI: <http://dx.doi.org/10.1016/j.tele.2016.11.006>
- Zhang, J., Chen, G. M., Chock, T. M., Wang, Y., Ni., L., & Schweisberger, V. (2016). A psychophysiological study of processing HIV PSAs: The effects of narrative versus statistical evidence form, novelty and sexual appeals, and viewer's sex. *Health Communication*, 31(7), 853-862. DOI: [10.1080/10410236.2015.1012629](https://doi.org/10.1080/10410236.2015.1012629)
- Kim, J. & Chock, T. M. (2015). Body Image 2.0: Associations between social grooming on Facebook and body image concerns. *Computers in Human Behavior*, 48, 331-339, DOI: [10.1016/j.chb.2015.01.009](https://doi.org/10.1016/j.chb.2015.01.009)
- Zhang, J., Chock, T. M., Chen, G. M., Schweisberger, V., & Wang, Y. (2014). Persuasiveness of AIDS Public Service Announcements as a function of argument quality, personal relevance, and evidence form. *Social Behavior and Personality*, 42 (10), 1603-1612.
- Zhang, J., Zhang, D. and Chock, T. M. (2014). Effects of HIV/AIDS PSAs on attitude and behavior: Interplay of perceived threat and self-efficacy. *Social Behavior and Personality*, 42(5), 798-810. <https://doi.org/10.2224/sbp.2014.42.5.799>
- Chock, T. M., Wolf, J. M., Schweisberger, V., Wang, Y., & Chen, G. (2013). Social media features on a local news website attract college-age audiences. *Newspaper Research Journal*, 34(4). DOI: [10.1177/073953291303400408](https://doi.org/10.1177/073953291303400408)
- Chock, T. M. (2011). Is it seeing or believing? Exposure, perceived realism and emerging adults' perceptions of their own and others' attitudes about relationships. *Media Psychology*, 14(4), 355-386. <https://psycnet.apa.org/doi/10.1080/15213269.2011.620537>
- Chock, T. M., Fox, J. R., Angelini, J. R., Lee, S., & Lang, A. (2007). Telling me quickly: How arousing fast-paced PSAs decrease self-other differences. *Communication Research*, 34(6), 618-636.
- Shapiro, M. A., & Chock, T. M. (2004). Media dependency and perceived reality of fiction and news. *Journal of Broadcasting and Electronic Media*, 48(4), 713-721.
- Chock, T. M., Lee, S., Angelini, J.R., Lee, S., & Lang, A. (2004). The impact of physiological arousal on self-other distinctions. *Psychophysiology*, 41, supplement 1, S61.
- Shapiro, M. A. & Chock, T. M. (2003). Psychological processes in perceived reality. *Media Psychology*, 5(2), 162-198.
- Krikorian, D., Lee, J. S., Chock, T. M., & Harms, C. (2000). Isn't that spatial? Distance and communication in a 2-D virtual environment. *Journal of Computer Mediated Communication*, 5(4). (<http://www.ascusc.org/jcmc/vol5/issue4/krikorian.html>)

Selected Refereed Conference Papers

- Lee, H., Kim, S. J., Lee, S., Yao, S., Wongmith, N., & Chock, T. M. (2021). *Confusion about the Coronavirus: The effects of uncertainty on information seeking behaviors*. Presented to the Communication Theory and Methodology Division of the AEJMC, Virtual Conference.
- Lee, H., Kim, S. J., Yao, S., Lee, S., & Chock, T. M. (2021). *The harder the battle, the more we talk: The effects of perceived risk of player-death on game enjoyment in a mobile FPS game*. Presented to the Game Studies Division of the annual conference of the International Communication Association, Virtual Conference.

- Lee, S. Y., Kim, S. J., Lee, H., & Chock, T. M. (2021). *Why people became hostile during the COVID-19 Pandemic: Exploring the role of social media information exposure and blame attribution*. Presented to the Mass Communication Division of the annual conference of the International Communication Association, Virtual Conference.
- Kim, S. J. & Chock, T. M. (2021). *Revisiting the CMM in the COVID-19 pandemic: Examining the factors contributing to a willingness to engage in prevention behaviors*. Presented to the Information Systems Division of the 2021 annual conference of the International Communication Association, Virtual Conference.
- Yao, S., Lin, T., Kim, S. J., Lee, H., & Chock, T. M. (2021). *Hesitating to use VR? How personal experience, risk perception and emotions shape the adoption of VR*. Presented to the Health communications Division of the annual conference of the International Communication Association, Virtual Conference.
- Lee, H., Kim, S. J., Yao, S., Lee, S. Y. & Chock, T. M. (2020). *Are you engaging the game? Effects of the challenge and the interaction toward game engagement in mobile FPS games*. Presented to the COMSher Division at the annual conference of the Association for Education in Journalism and Mass Communication, Virtual Conference.
- Lee, J., Kim, J., and Chock, T. M. (2020). *From risk butterflies to citizens engaged in risk prevention in the Zika virus crisis: Focusing on personal, societal and global risk perceptions*. Presented to the Health Communication Division of the annual conference of the National Communication Association, Virtual Conference.
- Kim, S. J., Lee, H., Yao, S., and Chock, T. M. (2020). *The effects of virtual reality on the information processing of attitude change and its behavioral intention: in the context of gun control*. Presented to the Information System Division of the annual conference of the International Communication Association, Virtual Conference.
- Kim, S. J., Park, K., Buntain, N. Lee, H., Yao, S., and Chock, T. M. (2020). *The effects of virtual reality on the information processing of attitude change: In the context of nuclear weapons*. Presented to the Information System Division of the annual conference of the International Communication Association, Virtual Conference
- Kim, S. J. & Chock, T. M. (2020). *How does fake news spread out on social media?: In the context of dual-process with credibility, cognitive appraisal to threat, and corrective action*. Presented to the Information System Division of the annual conference of the International Communication Association, Virtual Conference.
- Kim, G. & Chock, T. M. (2020). *The persuasion processes in virtual reality in the context of technology acceptance*. Presented to the Information System Division of the annual conference of the International Communication Association, Virtual Conference.
- Kim, G., Buntain, N., Hirshfield, L., Costa, M. and Chock, T. M. (2019). *Processing racial stereotypes in virtual reality: An exploratory study using functional near-infrared spectroscopy (fNIRS)*. Presented at the 21st International Conference on Human-Computer Interaction, Orlando, FL.
- Park, K., Kim, S. J., Chock, T. M. (2019). *Effects of virtual reality experiences on activism*. Presented to the Information Systems Division of the annual conference of the International Communication Association, Washington, DC.
- Chock, T. M.; Hirshfield, L.; Costa, M.; Kim, S. J.; Zhang, J., Kim, G. M.; Buntain, N. K.; Ri, S. Y.; Yao, S. Pacheco, D. (2018). *This is your brain on VR: Designing a VR/fNIRS Device*. Presented to the 18th Conference of the International Society of Presence Research.

- Canuelas, L. E., Zhang, J., Buntain, N. K., Kim, S., Gayle, G., Morntountak, A., Wirzburger, A. F., Domenico, I. M., Gaggin, K., Lee, J., Park, K. Hu, J., Rao, H. A. H. LK. and Chock, T. M. (2018). *More than a game? Attitudes about virtual reality*. Presented to the 18th Conference of the International Society of Presence Research, Prague, CZ.
- Kim, S., Buntain, N. K., Zhang, J., Wirzburger, A.F., Park, K., Morntauntak, A., Lee, J., Hu, J., Gayle, G., Gaggin, K., Domenico, I. M., Canuelas, L. E., Rao, H. A.H. L.K., Ri, S. Y, and Chock, T. M. (2018). *Eyewitness: Stereotype priming, memory, and attitude change in a virtual reality environment*. Presented to the Information Systems Division of the annual conference of the International Communication Association, Prague, CZ.
- Gaggin, K., Park, K., Lee, J., Kim, S., Buntain, N. K., Domenico, I. M., Canuelas, L. E., Gayle, G. Hu, J., Morntauntak, A., Rao, H. A.H. L.K., Wirzburger, A.F., Zhang, J., Cho, Y., and Chock, T. M. (2018). *The bag stands alone: Stereotype processing in virtual reality*. Presented to the Information Systems Division of the annual conference of the International Communication Association, Prague, CZ.
- Chock, T. M. (2016). *Who shot first? Presence, stereotype priming and memory in a virtual reality environment*. Presented to the International Society for Presence Research conference, Kyoto, Japan.
- Roh, S. & Chock, T. M. (2016). *Hostile social media effect: Influences of partisanship, social endorsement, and outrage on willingness to engage in online discursive activities*. Presented to the Communication and Technology Division at the annual conference of the International Communication Association, Fukuowa, Japan.
- Chock, T. M., Kim, J. W., Chung, M., and Chung, A. (2015). *The role of source identification and credibility in the social media impact hypothesis*. Presented to the Information System Division at the annual conference of the International Communication Association, San Juan, Puerto Rico.

Invited Presentations and Seminars

- 2019 *Psychological and Social Factors Influencing the Impact of Social Media*. Seminar at the Hochschule der Medien, Stuttgart, Germany.
- 2019 *Psychological and Social Factors Influencing the Processing of Virtual Reality*. Seminar at the Hochschule der Medien, Stuttgart, Germany.
- 2019 *The Psychology of Virtual Reality*. GamesDay Conference. Institut für Games. Hochschule der Medien, Stuttgart, Germany.
- 2019 *Extended Reality: Storytelling and Research*. Seminar at Konkuk University. Sponsored by Brain Korea 21 Program for Leading Universities and Students.
- 2019 *Fighting Fake News Workshop*; an Enter the Public Square Forum. Southwest Community Center, Syracuse New York.
- 2018 *Psychology of Virtual Reality: Perceptions, Emotions, and Memory*. Peking University; Renmin University; Nanjing Normal University
- 2018 *Using Virtual Reality to Study the Impact of Cognitive Biases on Attitudes and Memory*. Social Psychology Seminar, Syracuse University.
- 2016 *Studying the Effects of Virtual and Augmented Reality*. Presented to the Media, Informatie en Communicatie School in the Hogeschool van Amsterdam.

Invited Panel Presentations

AEJMC Diversity and Inclusion Career Development Fellowship & Workshop (2021).
 Workshop developer and panelist.
12th Annual 2020 Pre-Convention Communications Live Virtual Workshop. Session 1 - How to Communicate Risk: Lessons from the Coronavirus Pandemic (Planning meetings).
 Invited Participant on Panel at the annual *New York State School Boards Association's Communications Workshop*
Trust, Suspicion, & Persuasion (2014). *CENTCOM Panel. Tampa, FL.*

Selected Newhouse/Syracuse University Service

S. I. Newhouse School of Public Communications, Syracuse University
 2021 Founder and Director of the Extended Reality Research Lab
 2020-2021 Graduate Program Committee (Chair 2020-2021)
 2020 Founding member, Extended Reality Working Group
 2016-present Assessment Committee Member
 2016 (Spring) Interim Director, Media Studies Master's Program
 2011-2014/17 Faculty Council (Chair 2011-2014)
 2011-2014 Executive Committee
 2011-2014 Admissions Committee
 2009-2011 Diversity Committee
 2006-2008 Development & Leaves Committee (Chair 2007-2008)

Service to the Community

2020 Panelist. *12th Annual 2020 Pre-Convention Communications Live Virtual Workshop. Session 1 - How to Communicate Risk: Lessons from the Coronavirus Pandemic.* New York State School Boards Association's Communications Workshop
 2019 *Fighting Fake News Workshop*; an Enter the Public Square Forum. Southwest Community Center, Syracuse New York.
 2009-2010 *Syracuse.com*—Scholarship in Action Project
 2008- *Perceptions of multi-cultural HIV/AIDS Public Service Announcements--* Scholarship in Action Project for Syracuse Aids Community Resources (ACR)
 2007- *Perceptions of Anti-Methamphetamine Public Service Announcements--* Scholarship in Action Project for Partnership for a Drug Free America

Service to Professional Associations

2021 Chair: Annie Lang Dissertation Award Selection Committee. Information Systems Division of the International Communications Association.
 2020-2022 Appointed Member--AEJMC Presidential Committee on Careers
 2020-2021 Member & Panelist--AEJMC Diversity and Inclusion Career Development Fellowship & Workshop Committee
 2012-2013 Chair: Communication and Social Cognition Division of the National Communication Association. Elected position.
 2012-2013 Nominating Committee Member: National Communication Association. Appointed position.
 2011-2014 Member—Legislative Assembly: National Communication Association.

2010-2011 Research Committee Chair: Communication and Social Cognition Division of the National Communication Association. Planned and programmed the CSC Division panels for the 2010 annual conference in San Francisco.

Grant, Journal, and Conference Paper Reviewer

2021 *Effects of media exposure and information about COVID-19 on risk perception and mental health of population*, Grant reviewer for the Ministry of Science of Montenegro

2012-2014 *Communication Reports, Editorial Board Member*

2010-present *Journalism & Mass Communication Quarterly*

2006-present *Media Psychology*

Grants & Awards

2020/2021 *AR/VR recording: Cultural differences in perceptions of bystander privacy.* Facebook “Consider Everyone” (\$75,000). Principle Investigator. (Awarded June 3, 2021).

2018-present David Levidow Professorship

2018 CUSE Seed Grant (\$4999): *Using Virtual Reality to Examine Stereotypes and Cognitive Biases*. Principle Investigator: T. Makana Chock

2018 Excellence in Research Mentoring Award, S. I. Newhouse School, Syracuse University

2013-2016 Newhouse Endowed Chair of Public Communications

2017 HP/Educause Virtual Reality Education and Research Equipment Award

2012 Newhouse Sponsored Activity Initiative Recipient

2003 Top Student Paper. Communication and Social Cognition Division (NCA)

1998 Top Information Systems Division Paper (ICA). Co-author.

Appendix C – Letters of Commitment from External Organizations
Not applicable

Appendix D – Letters of Support
Not applicable

Appendix E – Budget Worksheet

Budget Category	Federal Request
Personnel	\$211,324.00
Fringe Benefits	\$27,241.00
Travel	\$10,700.00
Supplies	\$9,800.00
Contractual	\$100,000.00
Other	\$36,000.00
<i>Total Direct Costs</i>	\$395,065
Indirect Costs (50%)	\$197,533.00
TOTAL PROJECT COSTS	\$592,598.00

Budget Justification

A. Salaries and Wages

SENIOR PERSONNEL	Year 1	Year 2	Total
PI Leahy - Media Literacy	\$20,001	\$20,000	\$40,001
PI Chock – XR	\$20,000	\$19,999	\$39,999
TOTAL SENIOR PERSONNEL	\$40,001	\$39,999	\$80,000
OTHER PERSONNEL	Year 1	Year 2	Total
Graduate Research Assistants x2	\$50,580	\$50,580	\$101,160
Undergraduate Student(s)	\$2,043	\$2,105	\$4,148
Graduate Research Assistants summer	\$12,816	\$13,200	\$26,016
TOTAL OTHER PERSONNEL	\$65,439	\$65,885	\$131,324
TOTAL SALARIES & WAGES	\$105,440	\$105,885	\$211,324

Senior Personnel

The Principal Investigator, Dr. Kelly Leahy, will devote 1.8 summer months each summer throughout the two-year project period. Effort spent on the project but not compensated for within the academic year is deemed to be included within the faculty member's regular organizational duties. She will be responsible for overall project direction and coordination, for assuring successful project completion, including submission of progress reports, as required. Dr. Leahy will be responsible for designing media literacy interventions, supervising completion of the gamification of them and preparation of manuscripts for publication, and supervising the undergraduate student.

The Co-Principal Investigator, Dr. Makana Chock, will devote 1.5 summer months for two years toward the project. Effort spent on the project but not compensated for within the academic year is deemed to be included within the faculty member's regular organizational duties. She will be responsible for the design of the VR data collection process, development of the experimental

model, and program evaluation. She will also supervise the graduate students, be responsible for the review of the field-testing data and comparison with the experimental model study, and evaluation of the studies.

Effort spent on the project but not compensated for within the academic year is deemed to be included within the faculty member's regular organizational duties. Syracuse University faculty appointments are for 8.5 months. Salaries are escalated by 3.0% annually for budget preparation purposes; actual salaries in place during the time of the award are charged.

Salaries and Wages – Other Personnel

Funding for two graduate students, 9AY mo. (0.5 FTE) and 3 summer months (1 FTE), is requested for each year of the two-year project. The graduate student will be involved with the collection of survey data and its review and analysis, analysis of the field test data, and development of the experimental model and non-parametric study.

Funding for one undergraduate student, 10 hours/week for 30 weeks, is requested for each year of the two-year project.

B. Fringe Benefits

FRINGE BENEFITS	Year 1	Year 2	Total
Summer Faculty (17.1%)	\$6,840	\$6,840	\$13,680
Graduate Students (10.9%)	\$5,513	\$5,513	\$11,026
Hourly Employees (8.4%)	\$1,248	\$1,286	\$2,534
TOTAL FRINGE BENEFITS	\$13,602	\$13,639	\$27,241

Fringe Benefits are calculated as direct costs in accordance with Syracuse University's indirect cost rate agreement (Department of Health and Human Services, 17.1% for faculty during the summer; 28.1% for faculty during the academic year and full-time staff, 10.9% for graduate students and 8.4% for undergraduate students and temporary staff). Actual rates in place during the time of the award would be charged.

Domestic Travel

TRAVEL	Year 1	Year 2	Total
Domestic	\$5,350	\$5,350	\$10,700
TOTAL TRAVEL	\$5,350	\$5,350	\$10,700

A total of \$10,700 is requested over the two years for both senior personnel to meet with VR researchers to discuss findings and disseminate research results. Estimated annual costs per single traveler are: \$1500 for round trip air-fare from Syracuse to San Francisco, 3 nights @ \$300/night, \$1500 airfare, \$225 per diem, \$100 gr transp, \$100 misc = \$2825/person)

Supplies

Supplies	Year 1	Year 2	Total
Game Design Assets	\$4,900	\$4,900	\$9,800
SUPPLIES	\$4,900	\$4,900	\$9,800

Game assets are digital design components which we will use to create the gamification intervention. Examples of assets are designed characters, sets, props, fonts, etc. All the visual features that make the game interesting. Purchasing game assets is much more effective than hiring a designer to create all new elements.

Contractual

CONTRACTUAL	Year 1	Year 2	Total
Game Designer	\$50,000	\$50,000	\$100,000
TOTAL CONTRACTUAL	\$50,000	\$50,000	\$100,000

\$100,000 is requested for a game designer to provide gamification design services of the media literacy intervention. Approximately \$10,000/month of consulting work is estimated through the ten months of service during Phases III and IV of our program.

Other Costs

OTHER COSTS	Year 1	Year 2	Total
Subject Recruitment Fees	\$3,000	\$3,000	\$6,000
Advisory steering committee (\$3000 x 5 committee members)	\$15,000	\$15,000	\$30,000
TOTAL OTHER COSTS	\$18,000	\$18,000	\$36,000

Two critical components of this project are (a) subject recruitment fees which includes advertisements and outreach, as well as a stipend for subjects who come to our lab and (b) an Advisory Steering Committee, for which we would like to offer a \$3000 honorarium to five members.

Indirect Costs

	Year 1	Year 2	Total
MTDC	50.00%	50.00%	
DC SUBJECT TO F&A (F&A BASE):	\$197,291	\$197,774	\$395,065
INDIRECT COSTS	\$98,646	\$98,887	\$197,533

Indirect Costs are calculated in accordance with Syracuse University's federally negotiated indirect cost rate agreement (Department of Health and Human Services, effective 05/21/2021),

which is currently 50% of modified total direct costs (MTDC). Syracuse University's threshold for equipment is \$5,000.

Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

05/04/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

Syracuse University

* b. Employer/Taxpayer Identification Number (EIN/TIN):

(b)(6)

* c. UEI:

C4BXLBC11LC6

d. Address:

* Street1:

211 Lyman Hall

Street2:

* City:

Syarcuse

County/Parish:

* State:

NY: New York

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

13244-1270

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Mr.

* First Name:

Ross

Middle Name:

* Last Name:

Gullo

Suffix:

Title:

Research Administrator

Organizational Affiliation:

* Telephone Number:

(b)(6)

Fax Number:

* Email:

(b)(6)

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

O: Private Institution of Higher Education

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Department of Homeland Security - FEMA

11. Catalog of Federal Domestic Assistance Number:

97.132

CFDA Title:

Financial Assistance for Targeted Violence and Terrorism Prevention

* 12. Funding Opportunity Number:

DHS-22-TTP-132-00-01

* Title:

Fiscal Year (FY) 2022 Targeted Violence and Terrorism Prevention (TVTP)

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Media Literacy & the Metaverse

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="592,598.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="592,598.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:

EMW-2022-GR-APP-00013

Application Information

Application Number: EMW-2022-GR-APP-00013

Funding Opportunity Name: Fiscal Year (FY) 2022 Targeted Violence and Terrorism Prevention (TVTP)

Funding Opportunity Number: DHS-22-TTP-132-00-01

Application Status: Pending Review

Applicant Information

Legal Name: Syracuse University

Organization ID: 23875

Type: Private Institutions of Higher Education

Division:

Department:

EIN: (b)(6)

EIN Shared With Organizations:

DUNS: 002257350

DUNS 4:

Congressional District: Congressional District 24, NY

Physical Address

Address Line 1: 900 South Crouse Avenue

Address Line 2: Suite 620

City: Syracuse

State: New York

Province:

Zip: 13244-[Grantee Organization > Physical Address > Zip 4]

Country: UNITED STATES

Mailing Address

Address Line 1: 211 Lyman Hall

Address Line 2: [Grantee Organization > Mailing Address > Address 2]

City: Syracuse

State: New York

Province:

Zip: 13244-[Grantee Organization > Mailing Address > Zip 4]

Country: UNITED STATES

SF-424 Information

Project Information

Project Title: Media Literacy & the Metaverse

Program/Project Congressional Districts: Congressional District 24, NY

Proposed Start Date: Sat Oct 01 00:00:00 GMT 2022

Proposed End Date: Mon Sep 30 00:00:00 GMT 2024

Areas Affected by Project (Cities, Counties, States, etc.): Syracuse, NY Onondaga County, NY New York

Estimated Funding

Funding Source	Estimated Funding (\$)
Federal Funding	\$592598
Applicant Funding	\$0
State Funding	\$0
Local Funding	\$0
Other Funding	\$0
Program Income Funding	\$0
Total Funding	\$592598

Is application subject to review by state under the Executive Order 12373 process? Program is not covered by E.O. 12372.

Is applicant delinquent on any federal debt? false

Contacts

Contact Name	Email	Primary Phone Number	Contact Types
Ross Gullo	(b)(6)		Authorized Official
Ross Gullo			Primary Contact
Kelly Leahy			Secondary Contact
Stuart Taub			Signatory Authority

SF-424A

Budget Information for Non-Construction Programs

Grant Program: Targeted Violence and Terrorism Prevention Grant Program

CFDA Number: 97.132

Budget Object Class	Amount
Personnel	\$211325
Fringe Benefits	\$27240
Travel	\$10700
Equipment	\$0
Supplies	\$9800
Contractual	\$100000
Construction	\$0
Other	\$36000
Indirect Charges	\$197533
Non-Federal Resources	Amount
Applicant	\$0
State	\$0
Other	\$36000
Income	Amount
Program Income	\$0

How are you requesting to use this Program Income? [\$budget.programIncomeType]

Direct Charges Explanation:

Indirect Charges explanation:

Forecasted Cash Needs (Optional)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Federal	\$	\$	\$	\$
Non-Federal	\$	\$	\$	\$

Future Funding Periods (Years) (Optional)

First	Second	Third	Fourth
\$	\$	\$	\$

Remarks:

SF-424C

Budget Information for Construction Programs

Assurances for Non-Construction Programs

Form not applicable? false

Signatory Authority Name: Ross Gullo

Signed Date: Tue May 17 00:00:00 GMT 2022

Signatory Authority Title: Research Adminsitrator

Certification Regarding Lobbying

Form not applicable? false

Signatory Authority Name: Ross Gullo

Signed Date: Tue May 17 17:41:31 GMT 2022

Signatory Authority Title: Research Administrator

Disclosure of Lobbying Activities

Form not applicable? true

Signatory Authority Name: Ross Gullo

Signed Date:

Signatory Authority Title:

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* APPLICANT'S ORGANIZATION

Syracuse University

* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix: Mr. * First Name: Ross Middle Name:

* Last Name: Gullo Suffix:

* Title: Research Administrator

* SIGNATURE: Ross Gullo

* DATE: 05/04/2022